

[0050] of the specification.

By contrast to the claimed subject matter, Komiya discloses, in Figs. 1-3, a first gas flow path 51 that receives a gas at its leading end and at its trailing end, after the gas passes through a reformer 8, provides the gas to the leading end of a second flow path 50 (see Komiya paragraph [0064], lines 1-5, and paragraph [0072]). In brief, Komiya's first and second gas flow paths are serially connected such that gas that has passed through first gas flow path 51 subsequently enters and passes through second gas flow path 50.

Thus, the leading ends of Komiya's first gas flow path 51 and second gas flow path 50 do branch off from a common passage, as do the claimed first and second passages. Additionally, Komiya's first and second gas flow paths do not join each other at their trailing ends, as do the claimed first and second passages.

Moreover, Komiya discloses that four heat transfer fins 9 are helically disposed within first gas flow path 51 (see Komiya paragraph [0064]). As shown in Fig. 3, these four heat transfer fins 9 are disposed on the periphery of a first cylinder 61 so as to turn in the same direction. That is, Komiya discloses that a raw gas supplied to reforming catalyst layer 8 is caused to turn in the same direction in first gas flow path 51, and the reformed gas is further caused to turn in second gas flow path 50, under the

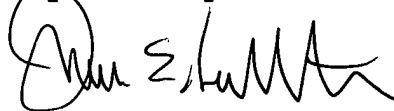
influence of four rods 81 (see paragraphs [0072] and [0091]).

In summary, Komiya does not disclose first and second gas flow passages that: (1) branch off from a common passage at their leading ends, (2) turn a mixed gas in opposite directions within the respective gas flow passages, and (3) join at their trailing ends so as to further mix the oppositely turning gasses for generating hydrogen, as recited in claim 1.

Accordingly, the Applicants respectfully submit that Komiya does not anticipate the subject matter defined by claim 1. Therefore, allowance of claim 1 and all claims dependent therefrom is warranted.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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